

APPLICANT(S): BLOOM, Ilan et al.
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forming a protective layer over at least a portion of said polycide structure, said protective layer adapted to persist on at least a portion of said polycide structure and to absorb electromagnetic wave energy having a wavelength shorter than visible light.

Attached hereto is a marked-up version of the changes made by the current amendment. The attached pages are captioned "Version with Markings to Show Changes Made".

REMARKS

The present response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application is respectfully requested.

Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

Status of Claims

Claims 1, 2 and 9 through 15 are pending in the application. Claims. Claims 1, 2 and 9 through 15 have been rejected.

Claim 1 has been voluntarily amended for clarification only. This amendment does not narrow the scope of the claim, nor is it being made for reasons of patentability.

Applicants respectfully assert that the amendments to the claim 1 add no new matter.

35 U.S.C. § 103 Rejections

In the Office Action, the Examiner rejected claims 1, 2 and 9 through 15 under 35 U.S.C. § 103(a), as being unpatentable over U.S. Pat. No. 4,992,391 to Wang, in view of U.S. Pat. No. 5,120,672 to Mitchell.

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Applicants respectfully traverse the 103 rejection of the claims. For the reasons stated below, Applicants respectfully traverse the rejection because a prima facie case of obviousness has not been established.

The Examiner's primary reference, Wang, teaches:

A process of forming a floating gate field-effect transistor having a multi-layer control gate line is disclosed. The multi-layer control gate line includes a first polysilicon layer, a silicide layer provided on the first polysilicon layer, and a second polysilicon layer provided on the silicide layer. The first and second polysilicon layers are formed as undoped polysilicon to improve the adhesion of the polysilicon layers to the silicide layers sandwiched therebetween. After all three layers are formed, the polysilicon layers are doped in an environment including POCl.sub.3. Because the first and second polysilicon layers are formed as undoped layers, all three layers of the control gate line may be formed using a single pump-down. (Wang - Abstract)

As is clear from the reading of just the abstract, the non-doped "protective layer" of undoped polysilicon taught in Wang is not the same protective layer as claimed in Claim 1 of the present application. Whereas from the plain language of claim 1 it is clear that "said protective layer [of the present application is] adapted to ... absorb electromagnetic wave energy having a wavelength shorter than visible light", the protective layer taught in the Wang reference is used to facilitate the partitioning of a multilayer floating gate. Furthermore, whereas the "protective layer" as defined in the present application remains intact past the formation of the memory cell, the "protective layer" described in the Wang reference is either altered (e.g. doped) or removed (e.g. etched) during the fabrication of the cell.

In an attempt to clarify the point that the "protective layer" in the present application is persistent, not to be removed or modified, Applicants have voluntarily amended claim 1 to introduce the language "said protective layer adapted to persist on at least a portion of said polycide structure...". Applicants note that the amendment to claim 1, did not introduce any new matter into the application, is fully supported by the application as filed, and was not in response to the above discussed prior art rejections.

An obviousness rejection requires a teaching or a suggestion by the relied upon prior art of all the elements of a claim (M.P.E.P. §2142). Given that that Wang reference neither teaches nor suggests a persistent protective layer which is adapted to absorb electromagnetic

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radiation, the combination of the Wang reference and the Mitchell reference also seem to fail teaching or suggesting all the limitations of independent claim 1. Accordingly, Applicants respectfully assert that the Examiner's 103 rejection of claim 1 should be withdrawn.

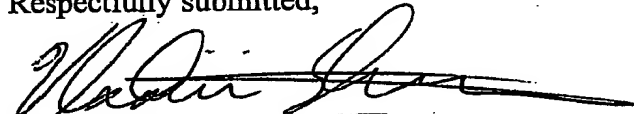
Claims 2 and 9 through 15 depend from claim 1, which is believed to be allowable. By virtue of their dependence on an allowable claim, claims 2 and 9 through 15 are believed to also be allowable.

In view of the foregoing remarks, the pending claims are deemed to be allowable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Please charge any fees associated with this paper to deposit account No. 05-0649.

Respectfully submitted,



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VERSION OF CLAIMS WITH MARKINGS SHOWING CHANGES

(Once Amended) 1. A method of protecting a non-volatile memory device, the method comprising:

Forming a non-volatile memory device comprising a polycide structure formed over a non-conducting charge trapping layer; and

forming a protective layer over at least a portion of said polycide structure, said protective layer adapted to persist on at least a portion of said polycide structure and to absorb electromagnetic wave energy having a wavelength shorter than visible light.